

34927 and 34928—Continued.**34928.** *VETIVERIA ZIZANIOIDES* (L.) Nash.**Vetiver.**(*Andropogon squarrosus* L. f.)

“The root of *Khas-khas* is extensively made into the aromatic-scented mats [tatties] which are hung in the doorways and kept wet to cool the atmosphere during the hot season. The raw material is exported to Europe, chiefly from Madras ports. Gildemeister and Hoffman (*Volatile Oils*, p. 289) say “the root is of a reddish color and often contaminated with red sand; a half distilled root is often found in commerce and can be recognized by its light color.” It seems more than probable that much of the so-called half-distilled root is in reality the roots that have been used in tatties for a season and are bought back by traders to be exported. The constant application of water and exposure to the fierce sun might easily exhaust a large proportion of the oil and bleach the roots. The roots when distilled with water yield a fragrant oil known in European trade as vetiver, which is used as a perfume and for flavoring sherbet. It commands a high price in Europe, being employed in many favorite scents. It is the most viscid of essential oils, and hence its sparing volatility is taken advantage of in fixing other perfumes. The oil is hardly, if ever, exported from India, European supplies being either locally made from Indian roots or derived from Reunion. According to Piesse the yield is about 10 ounces per hundredweight. Other observers have found it to vary from 0.2 to 3.5 per cent. In medicine the root has been regarded by European physicians as a diaphoretic and as a preservative against cholera (Pereira, *Mat. Med.*, II, pt. 1, p. 132). The grass (leaves, etc.) is suitable for paper making and it is said that 60,000 to 70,000 maunds are annually available in the Hissar district of the Punjab alone. When young the grass affords good fodder.” (*Watt's Commercial Products of India*.)

“It grows on the banks of rivers and marshes throughout the plains and lower hills of India, Burma, and Ceylon, ascending to 4,000 feet. No literature regarding its culture is available.”

34931 to 34939.

From Poona, India. Presented by Mr. W. Burns, economic botanist, Agricultural College, through Mr. C. V. Piper, of the Bureau of Plant Industry. Received February 28, 1913.

34931. *ALYSICARPUS LONGIFOLIUS* (Rottl.) Wight and Arn.**34932.** *ALYSICARPUS PUBESCENS* Law.**34933.** *ALYSICARPUS RUGOSUS* (Willd.) DC.

Related species of the above species of legumes are considered among the best Indian grazing plants.

34934. *ANDROPOGON ANNULATUS* Forsk.**34935.** *CHRYSOPOGON MONTANUS* Trinius.**34936.** *INDIGOFERA GLANDULOSA* Wendl.**34937.** *INDIGOFERA LINIFOLIA* (L. f.) Retz.**34938.** *INDIGOFERA TRIFOLIATA* Torner.

Distribution.—From the Himalayas, in northern India, where it ascends to an elevation of 4,000 feet, eastward and southward through China and the Malay Archipelago, to northern Australia.

34939. *DACTYLOCTENIUM AEGYPTIUM* (L.) Willd.
(*Eleusine aegyptiaca* Desf.)